

package encapsulant including an encapsulant material formed on the first surface of the substrate to enclose the electronic device, the degating region being formed outside the package encapsulant, wherein:

the encapsulant material and the degating region material [contacting the encapsulant] are chosen such that the adhesive force between the encapsulant material and the degating region material is less than the adhesive force between the encapsulant material and the substrate [material].

2. (AMENDED) A substrate-based packaged electronic device as in Claim 1, wherein the adhesive force between the encapsulant material and the degating region material [contacting the encapsulant] is less than one half the adhesive force between the encapsulant material and the substrate [material].

3. (AMENDED) A substrate-based packaged electronic device as in Claim 1, wherein the adhesive force between the encapsulant material and the degating region material [contacting the encapsulant] is approximately 10% of the adhesive force between the encapsulant material and the substrate [material].

4. (AMENDED) A substrate-based packaged electronic device as in Claim 1, wherein the degating region material [contacting the encapsulant] is gold.

5. (AMENDED) A substrate-based packaged electronic device as in Claim 4, wherein the encapsulant material is a thermosetting epoxy resin.

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6. (AMENDED) A substrate-based packaged electronic device as in Claim 1, wherein the structure for making external electrical connection further comprises a plurality of solder bumps formed on the second surface of the substrate.

7. (AMENDED) A substrate-based packaged electronic device as in Claim 1, wherein the electronic device is an integrated circuit chip.

8. (AMENDED) A substrate-based packaged electronic device as in Claim 7, wherein the adhesive force between the encapsulant material and the degating region material [contacting the encapsulant] is approximately 10% of the adhesive force between the encapsulant material and the substrate [material].

9. (AMENDED) A substrate-based packaged electronic device as in Claim 7, wherein the degating region material [contacting the encapsulant] is gold.

10. (AMENDED) A substrate-based packaged electronic device as in Claim 1, wherein the substrate is a multilayer substrate, electrically conductive traces and/or regions being formed within the multilayer substrate.

11. (AMENDED) A substrate for use in forming a substrate-based packaged electronic device, wherein:

a surface of the substrate is adapted for mounting an electronic device;

further comprising:

a degating region [is formed] on the surface of the substrate at a location such that the edges of a mold runner of a mold used to encapsulate the electronic device in encapsulant material fit entirely within the degating

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region when the substrate is positioned in the mold during encapsulation of the electronic device; and

a degating region material on the degating region,
the degating region material [is] being chosen such that the adhesive force between the encapsulant material and the degating region material [that contacts the encapsulant] is less than the adhesive force between the encapsulant material and the substrate [material].

15 ~~12.~~ (AMENDED) A substrate as in Claim 11, wherein the adhesive force between the encapsulant material and the degating region material [contacting the encapsulant] is approximately 10% of the adhesive force between the encapsulant material and the substrate [material].

16 ~~13.~~ (AMENDED) A substrate as in Claim 11 wherein the substrate is one of a plurality of substrates formed in a strip configuration for use in forming a plurality of substrate-based packaged electronic devices[, each of the substrates being formed as in Claim 11].

17 ~~14.~~ (AMENDED) A substrate as in Claim 13, wherein the adhesive force between the encapsulant material and the degating region material [contacting the encapsulant] is approximately 10% of the adhesive force between the encapsulant material and the substrate [material].

Please add new Claims 23-25.

18 ~~23.~~ A substrate-based packaged electronic device as in Claim 1 further comprising excessive encapsulant including the encapsulant material formed on the degating region.

12 ~~24.~~ A substrate-based packaged electronic device as in Claim 1) wherein the degating region material is palladium.

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